

**LISTING OF CLAIMS**

1. (Currently Amended) A ~~neurological-vaccine~~ composition comprising:  
a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen capable of being expressed in a subject, and a pharmaceutical acceptable carrier, such that the expressed antigen elicits production of antibodies in a circulatory system of the subject, wherein the antibodies pass across a blood-brain barrier into a central nervous system upon injury or disease, ~~thereby providing neuroprotection to the subject~~
2. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 1, wherein the produced antibodies bind to, and modify a function of ~~a target-protein~~ an NMDA receptor in the central nervous system, ~~to thereby ameliorate or prevent onset of a neurological disorder in the subject.~~
3. (Canceled)
4. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 1, wherein the antigen is NMDAR1.
5. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 2, wherein the ~~neurological disorder~~ injury is stroke.
6. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 2, wherein the ~~neurological disorder~~ disease is epilepsy.
7. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 1, wherein the ~~vaccine~~ vector is a viral vector ~~vaccine~~.

8. (Currently Amended) The ~~neurological-vaccine~~ composition of claim ~~1~~, 7, wherein the ~~vaccine comprises~~ a viral vector is selected from the group consisting of an adenovirus vector, a herpes virus vector, a parvovirus vector, and a lentivirus vector.

9. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 8, wherein the viral vector is an adeno-associated virus vector.

10. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 1, wherein the vaccine composition is a preparation for oral administration.

11. (Currently Amended) A method for modulating a ~~neurological-disorder~~ or delaying onset of epilepsy, stroke, or decreased cognition, wherein said method comprises the step of administering the ~~neurological-vaccine~~ composition of claim 1 to a subject.

12. (Currently Amended) A method for ameliorating a ~~neurological-disorder~~ or delaying onset of epilepsy, stroke, or decreased cognition in a subject comprising:  
administering a vaccine composition comprising a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen, and a pharmaceutical acceptable carrier, wherein the antigen elicits the production of antibodies in a circulatory system of the subject which modify the function of a ~~target-protein~~ an NMDA receptor in the central nervous system, ~~to thereby provide neuroprotection to the subject.~~

13. (Canceled)

14. (Original) The method of claim 12, wherein the antigen is NMDAR1.

15. (Canceled)

16.-19. (Canceled)